



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF APPEALS AND PATENT INTERFERENCES

Attorney Docket No. 054707-0202

In re patent application of  
Gregory S. Hamilton et al.

Serial No. 09/204,236

Group Art Unit: 1625

Filed: December 3, 1998

Examiner: Celia C. Chang

For: N-LINKED SULFONAMIDES OF  
N-HETEROCYCLIC CARBOXYLIC ACIDS  
OR CARBOXYLIC ACID ISOTERES

**BRIEF ON APPEAL**

Commissioner for Patents  
Washington, DC 20231

Sir:

This Appeal Brief is being filed in triplicate together with a check in the amount of \$160.00 covering the fee under 37 C.F.R. § 1.17(c) for a small entity. If this fee is deemed to be insufficient, authorization is hereby given to charge any deficiency (or to credit any overpayment) to the undersigned's Deposit Account No. 19-0741.

This is an appeal from the decision dated March 1, 2002 ("the final Office Action"), finally rejecting claims 90-107 and the Advisory Action dated July 18, 2002 ("the Advisory Action"), indicating that claims 90-111 were finally rejected.

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**REAL PARTY IN INTEREST**

The real party in interest in this case is the assignee of record, GPI NIL Holdings, Inc.

**RELATED APPEALS AND INTERFERENCES**

Appellants, Appellants' Representative, and the assignee of record are not aware of any other appeals or interferences that would directly affect, be directly affected by, or have a bearing on the Board's decision in this appeal.

**STATUS OF CLAIMS**

Claims 90-111 are pending. Claim 90-111 stand provisionally rejected for non-statutory double patenting over U.S. Patent Application No. 09/159,105. In the Advisory Action (see paragraph no. 5) the Examiner has apparently withdrawn all other grounds of rejection in the final Office Action. Applicants appeal the final rejection of claims 90-111.

**STATUS OF AMENDMENTS**

The Examiner has entered the amendment under 37 C.F.R. § 1.116 filed on July 1, 2002, as stated in the Advisory Action (paragraph no. 7).

**SUMMARY OF INVENTION**

A method of treating a neurological disorder in an animal, comprising administering to the animal an effective amount of a compound to stimulate growth of damaged peripheral nerves or to promote neuronal regeneration, where the compound has the formula (I).

**ISSUES**

There is one issue on appeal: Whether claims 90-111 are unpatentable for non-statutory double patenting over U.S. Patent Application No. 09/159,105?

**GROUPING OF CLAIMS**

The claims stand or fall together.

**ARGUMENT**

**I. The Rejection of Claims 90-111 for Non-Statutory Double Patenting**

Claims 90-111 stand provisionally rejected for non-statutory double patenting over claims 1-177 of U.S. Patent Application No., 09/159,105 ("the '105 application") in view of MedLine 98242495 ("Feghali").

The Office has maintained this rejection "for the reasons of record" (final Office Action, page 2, paragraph #2). The non-final Office Action dated 19-Sep-01 ("the non-final Action") asserted that claims 1-177 of the '105 application recite treating a disorder generically embraced by the present claims and that the disclosed compounds encompass those recited in the present claims (non-final Office Action, page 2, lines 6-10).

According to the M.P.E.P., a provisional double patenting rejection may be due between "two copending applications filed by the same inventive entity, or by different inventive entities having a common inventor, and/or by a common assignee." M.P.E.P. § 804.I.B., page 800-19 (8<sup>th</sup> Ed. August 2001). "[A]ny analysis employed in an obviousness-type double patenting rejection parallels the guidelines for analysis of a 35 U.S.C. § 103 obviousness determination." M.P.E.P. § 804.II.B.1, citing *In re Braat*, 937 F.2d 589, 19 USPQ2d 1289 (Fed. Cir. 1991) and *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985). "The fact that a claimed species or subgenus is encompassed by a prior art genus is not sufficient by itself to establish a *prima facie* case of obviousness." M.P.E.P. § 2144.08.II, citing *In re Baird*, 16 F.3d 380, 382, 29 USPQ2d 1550, 1552 (Fed. Cir. 1994).

The Examiner has based the obviousness conclusion exclusively on the genus-species relationship between the claims of the '105 application and the present claims. In doing so, the

Examiner has applied a *per se* rule in clear violation of the relevant USPTO guidelines and case law. The Examiner should therefore be reversed.

Factual findings that are material to patentability must be supported by substantial evidence. *In re Zurko*, 258 F.3d 1379, 1386 (Fed. Cir. 2001).

The Examiner has not provided substantial evidence that the '105 application is an application "filed by the same inventive entity, or by different inventive entities having a common inventor, and/or by a common assignee." The present application is assigned to "GPI NIL Holdings, Inc." which is entirely owned by Guilford Pharmaceuticals Inc. The Examiner has referred to an international application (WO 00/16603) listing as applicants Amgen, Inc. and Guilford Pharmaceuticals Inc. and claiming priority to the '105 application. However, the Examiner has not provided evidence that the '105 application was then or is currently assigned to GPI NIL Holdings, Inc. or to any company related to Guilford Pharmaceuticals Inc. Applicants have been unable to obtain a copy of the '105 application. However, WO 99/14998 (of record in this case in Form PTO-892 of Paper No. 17) also claims priority to the '105 application. WO 99/14998 has no common inventors with the '105 application.

Because there is no substantial evidence of either common ownership or a common inventor, the Board should reverse the Examiner on this issue.

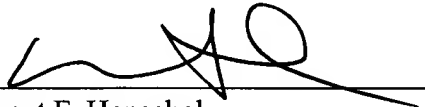
### **CONCLUSION**

Based upon the foregoing, Appellants respectfully submit that the provisional rejection is improper. Accordingly, the Board is respectfully requested to reverse the rejection.

Please charge or credit all fees as needed to Deposit Account No. 19-0741.

Respectfully submitted,

1-OCT-2002  
Date

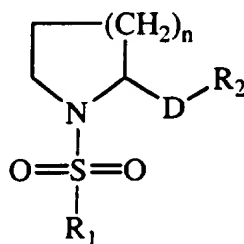
  
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**Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Commissioner is hereby authorized to charge Deposit Account No. 19-0741 for any such fees; and applicant(s) hereby petition for any needed extension of time.**

**APPENDIX (Claims On Appeal)**

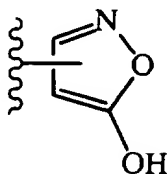
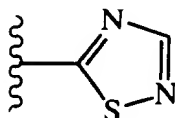
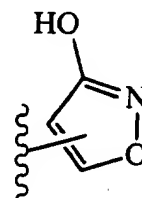
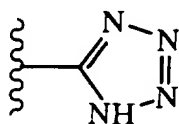
90. A method of treating a neurological disorder in an animal, comprising:  
 administering to the animal an effective amount of a compound to stimulate growth of  
 damaged peripheral nerves or to promote neuronal regeneration, where the compound has the  
 formula (I):



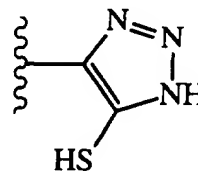
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where

- n is 1;  
 R<sub>1</sub> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>9</sub> straight or branched chain alkyl, C<sub>2</sub>-C<sub>9</sub> straight or branched chain alkenyl, aryl, heteroaryl, carbocycle, and heterocycle;  
 D is selected from the group consisting of a bond, C<sub>1</sub>-C<sub>10</sub> straight or branched chain alkylene, C<sub>2</sub>-C<sub>10</sub> alkenylene, and C<sub>2</sub>-C<sub>10</sub> alkynylene;  
 R<sub>2</sub> is a carboxylic acid isostere selected from the group consisting of:



and



wherein said alkyl, alkenyl, alkylene, alkenylene, alkynylene, aryl, heteroaryl, carbocycle, heterocycle, or carboxylic acid isostere is optionally substituted with one or more substituents selected from  $R_3$ , where

$R_3$  is selected from the group consisting of hydrogen, hydroxy, halo, haloalkyl, thiocarbonyl, alkoxy, alkenoxy, alkylaryloxy, aryloxy, arylalkyloxy, cyano, nitro, imino, alkylamino, aminoalkyl, sulfhydryl, thioalkyl, alkylthio, sulfonyl,  $C_1$ - $C_6$  straight or branched chain alkyl,  $C_2$ - $C_6$  straight or branched chain alkenyl or alkynyl, aryl, heteroaryl, carbocycle, heterocycle, and  $CO_2R_4$  where  $R_4$  is selected from the group consisting of hydrogen,  $C_1$ - $C_9$  straight or branched chain alkyl, and  $C_2$ - $C_9$  straight or branched chain alkenyl; or a pharmaceutically acceptable salt or solvate thereof.

91. The method of claim 90, wherein the neurological disorder is selected from the group consisting of peripheral neuropathies caused by physical injury or disease state, physical damage to the brain, physical damage to the spinal cord, stroke associated with brain damage, and neurological disorders relating to neurodegeneration.

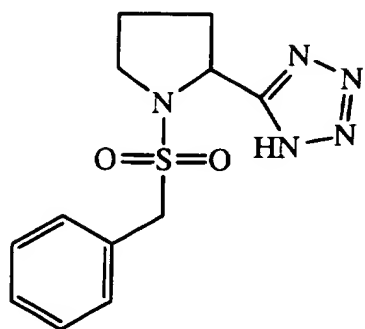
92. The method of claim 90, wherein the neurological disorder is selected from the group consisting of Alzheimer's Disease, Parkinson's Disease, and amyotrophic lateral sclerosis.

93. The method of claim 90, wherein the neurological disorder is Alzheimer's disease.

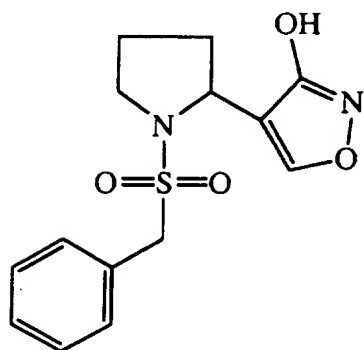
94. The method of claim 90, wherein the neurological disorder is amyotrophic lateral sclerosis.

95. The method of claim 90, wherein said compound is non-immunosuppressive.

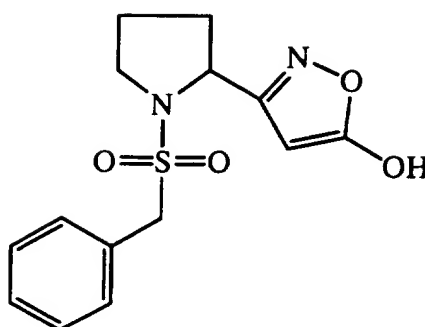
96. The method of claim 90, wherein the compound is selected from the group consisting of:



;



; and

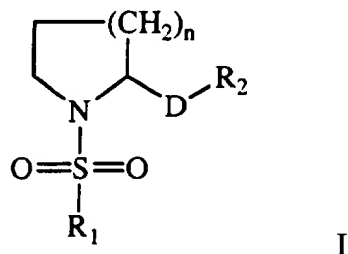


97. The method of claim 90, further comprising administering a neurotrophic factor different from formula (I).

98. The method of claim 97, wherein said neurotrophic factor different from formula (I) is selected from the group consisting of neurotrophic growth factor, brain derived growth factor, glial derived growth factor, ciliary neurotrophic factor, insulin growth factor and active truncated derivatives thereof, acidic fibroblast growth factor, basic fibroblast growth factor, platelet-derived growth factors, neurotrophin-3, and neurotrophin 4/5.



99. A method of treating a neurological disorder in an animal, comprising:  
 administering to the animal an effective amount of a compound to stimulate growth of  
 damaged peripheral nerves or to promote neuronal regeneration, where the compound has the  
 formula (I):



where

- n is 1;
- R<sub>1</sub> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>9</sub> straight or branched chain alkyl, C<sub>2</sub>-C<sub>9</sub> straight or branched chain alkenyl, aryl, heteroaryl, carbocycle, and heterocycle;
- D is selected from the group consisting of a bond, C<sub>1</sub>-C<sub>10</sub> straight or branched chain alkylene, C<sub>2</sub>-C<sub>10</sub> alkenylene, and C<sub>2</sub>-C<sub>10</sub> alkynylene;
- R<sub>2</sub> is a carboxylic acid or carboxylic acid isostere selected from the group consisting of: -COOH, -SO<sub>3</sub>H, -SO<sub>2</sub>HNR<sub>3</sub>, -PO<sub>2</sub>H, -CN, -PO(OH)(OR<sub>3</sub>), -C(O)NHOH, -C(O)NHSO<sub>2</sub>R<sub>3</sub>, and -CONHCN; wherein said alkyl, alkenyl, alkylene, alkenylene, alkynylene, aryl, heteroaryl, carbocycle, heterocycle, or carboxylic acid isostere is optionally substituted with one or more substituents selected from R<sub>3</sub>, where
- R<sub>3</sub> is selected from the group consisting of hydrogen, hydroxy, halo, haloalkyl, thiocarbonyl, alkoxy, alkenoxy, alkylaryloxy, aryloxy, arylalkyloxy, cyano, nitro, imino, alkylamino, aminoalkyl, sulfhydryl, thioalkyl, alkylthio, sulfonyl, C<sub>1</sub>-C<sub>6</sub> or branched chain alkyl, C<sub>2</sub>-C<sub>6</sub> straight or branched chain alkenyl or alkynyl, aryl, heteroaryl, carbocycle, heterocycle, and CO<sub>2</sub>R<sub>4</sub> where R<sub>4</sub> is selected from the group consisting of hydrogen, C<sub>1</sub>-C<sub>9</sub> straight or branched chain alkyl, and C<sub>2</sub>-C<sub>9</sub> straight or branched chain alkenyl; or a pharmaceutically acceptable salt, or solvate thereof.

100. The method of claim 99, wherein the neurological disorder is selected from the group consisting of peripheral neuropathies caused by physical injury or disease state, physical damage to the brain, physical damage to the spinal cord, stroke associated with brain damage, and neurological disorders relating to neurodegeneration.

101. The method of claim 99, wherein the neurological disorder is selected from the group consisting of Alzheimer's Disease, Parkinson's Disease, and amyotrophic lateral sclerosis.

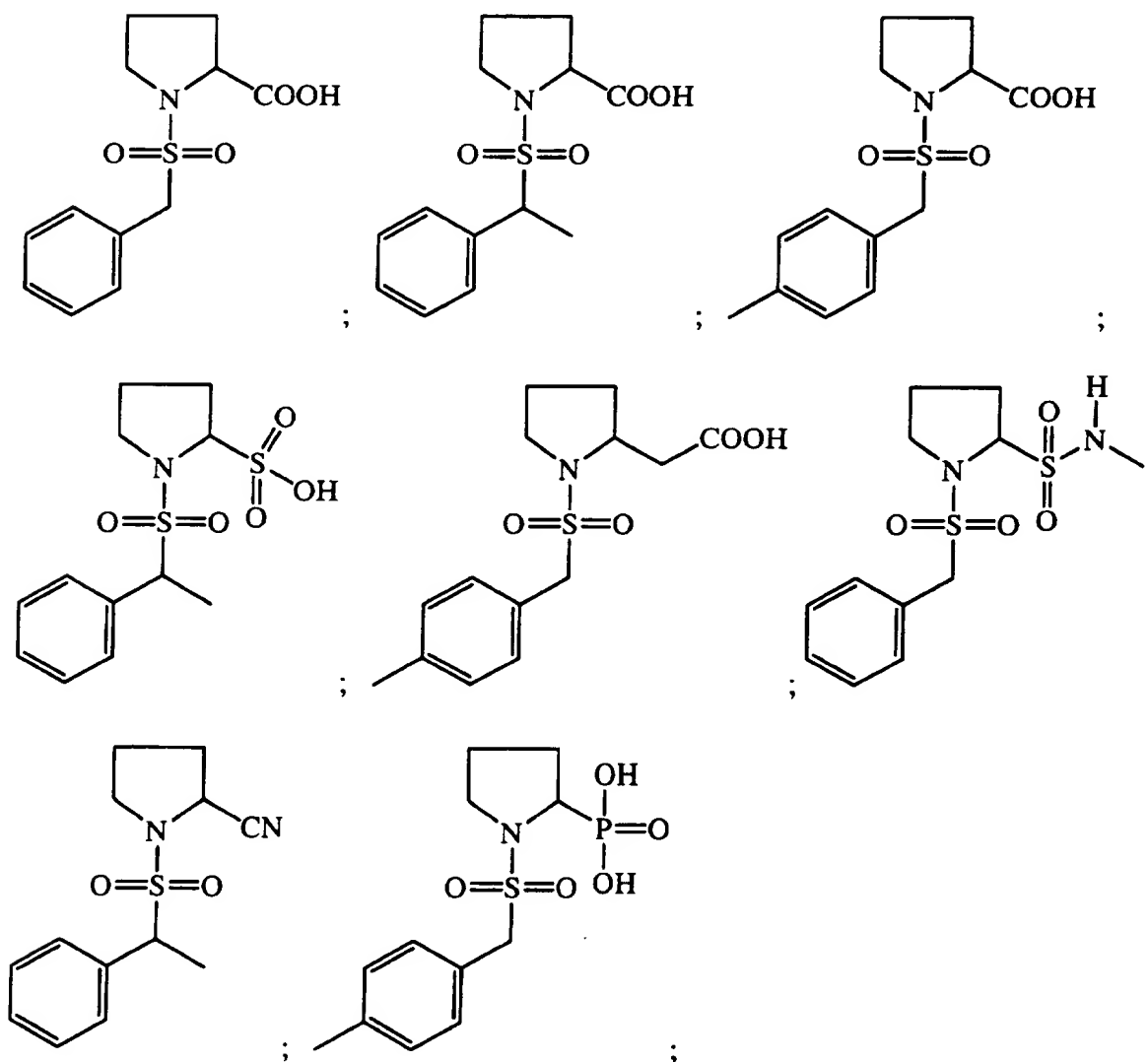
102. The method of claim 99, wherein the neurological disorder is Alzheimer's Disease.

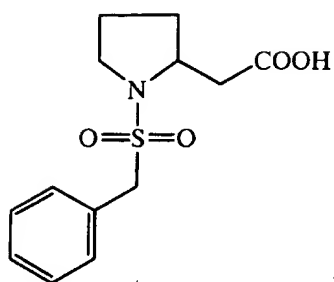
103. The method of claim 99, wherein the neurological disorder is amyotrophic lateral sclerosis.

104. The method of claim 99, wherein said compound is non-immunosuppressive.

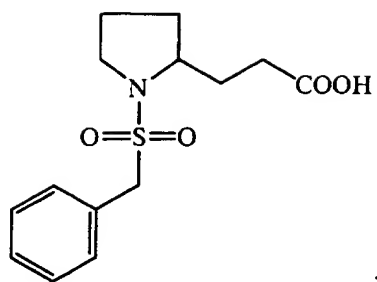
105. The method of claim 99, wherein the compound is selected from the group consisting of:

(2S)-1-(phenylmethyl)sulfonyl-2-hydroxymethyl pyrrolidine;

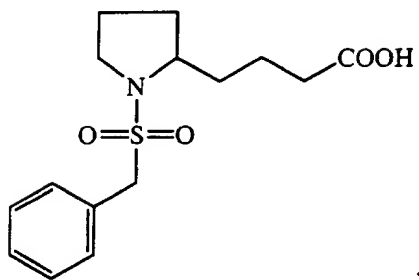




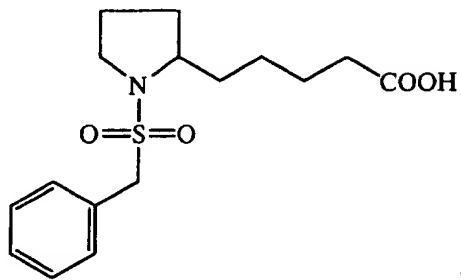
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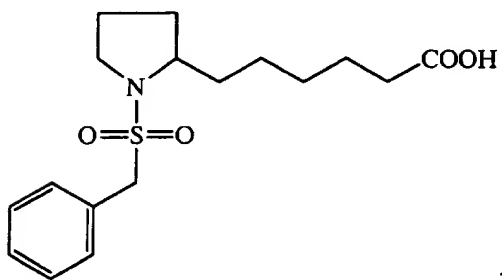
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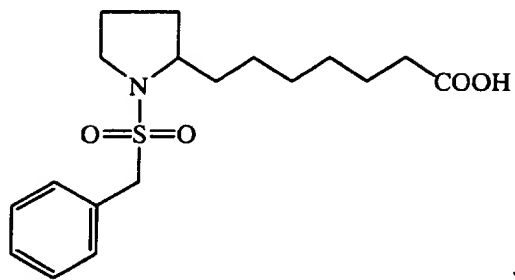
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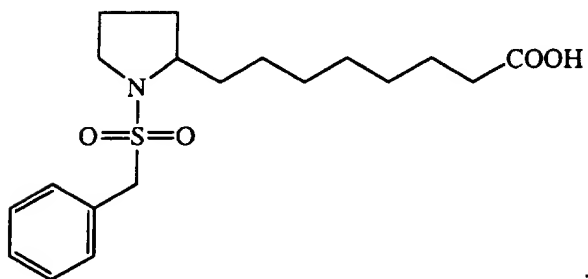
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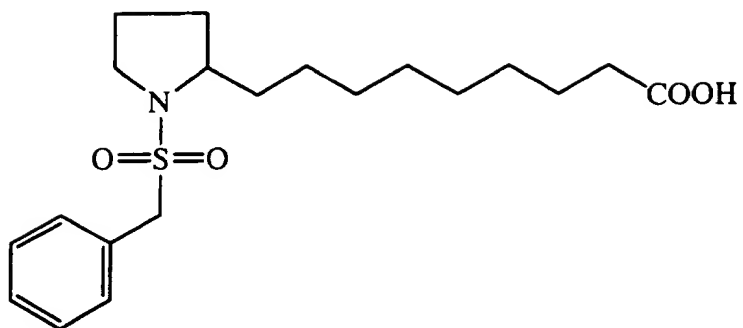
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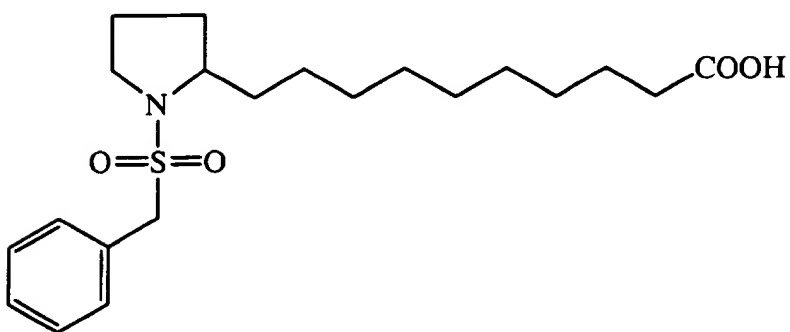
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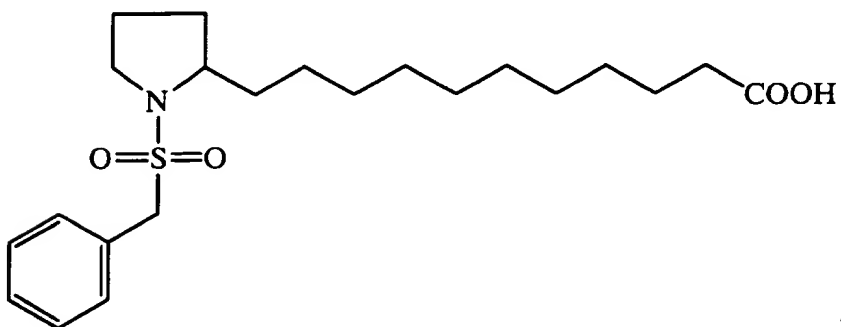
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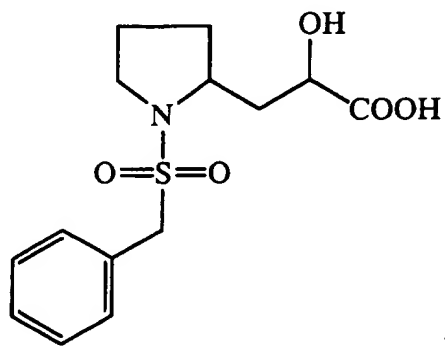
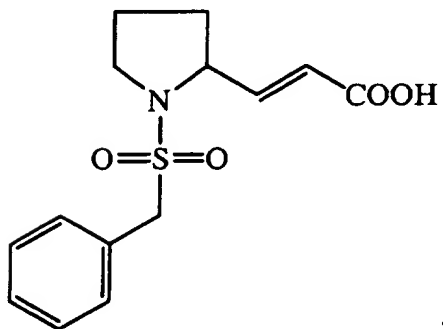
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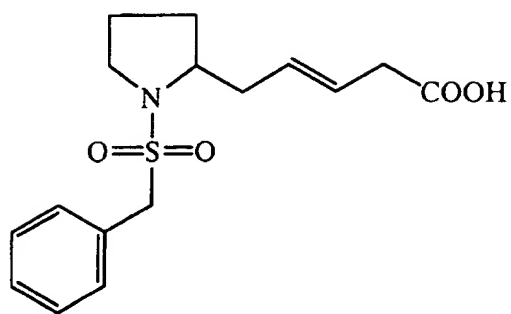


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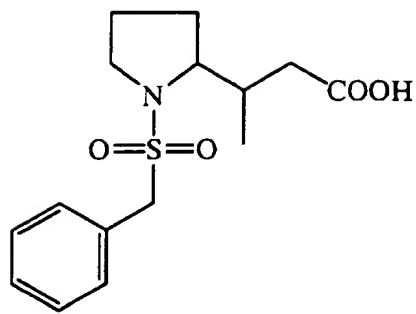


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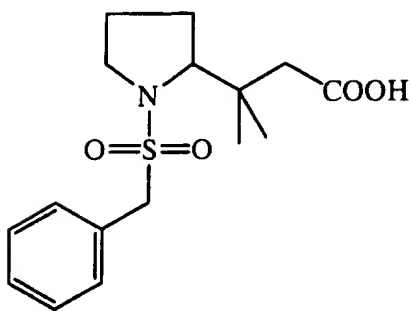
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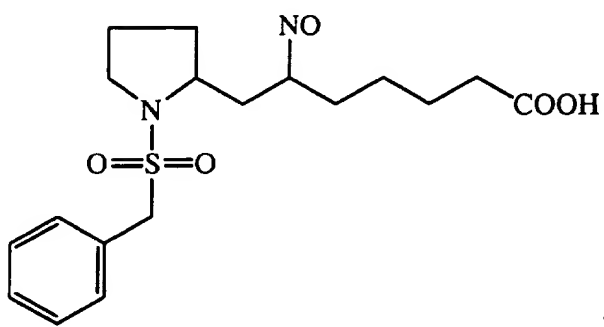
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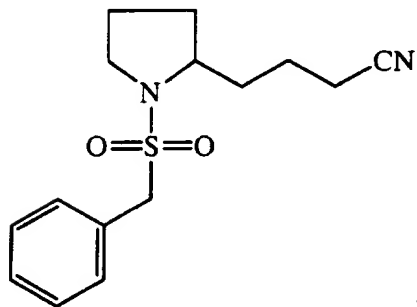
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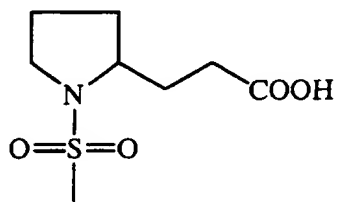
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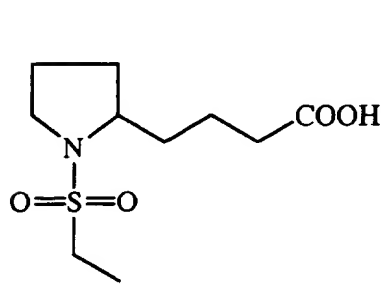
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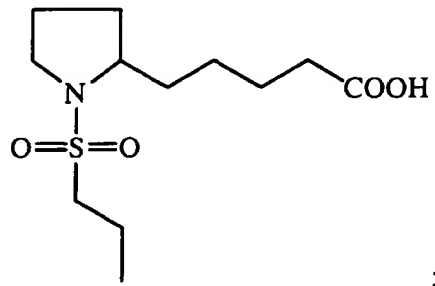
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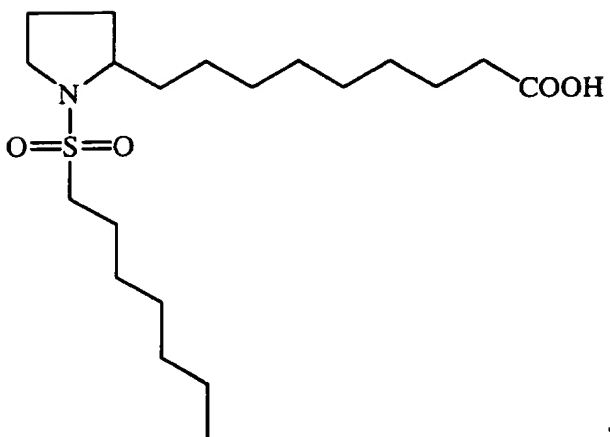
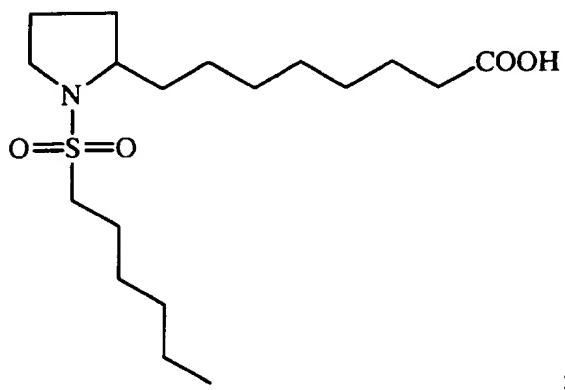
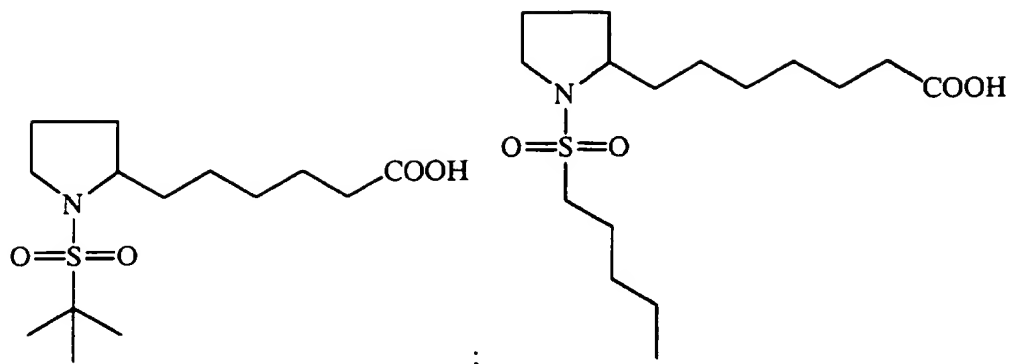
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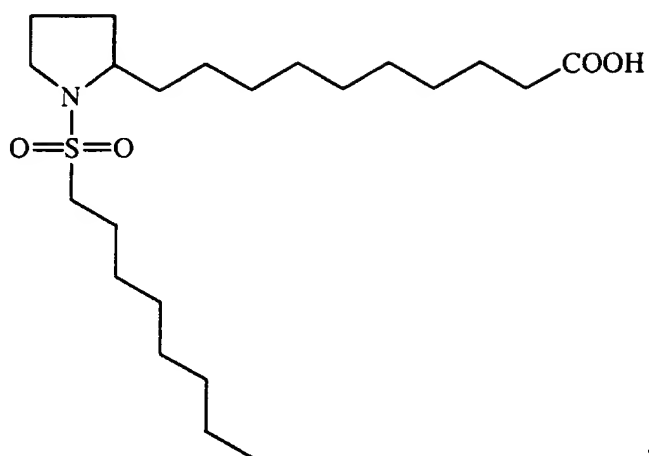


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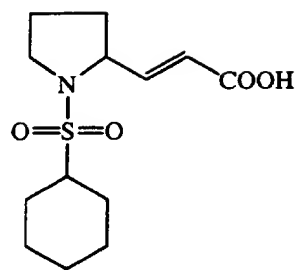
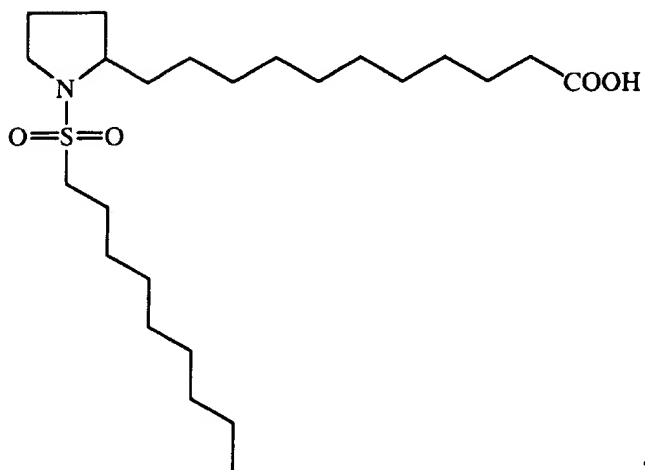


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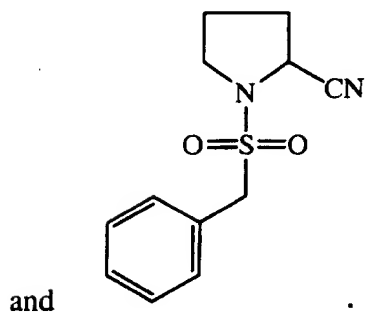


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106. The method of claim 105, further comprising administering a neurotrophic factor different from formula (I).

107. The method of claim 106 wherein said neurotrophic factor different from formula (I) is selected from the group consisting of neurotrophic growth factor, brain derived growth factor, glial derived growth factor, ciliary neurotrophic factor, insulin growth factor and active truncated derivatives thereof, acidic fibroblast growth factor, basic fibroblast growth factor, platelet-derived growth factors, neurotrophin-3, and neurotrophin 4/5.

108. The method of claim 90, wherein D is a bond.

109. The method of claim 90, wherein  $R_3$  is not cyano.

110. The method of claim 99, wherein D is a bond.

111. The method of claim 99, wherein  $R_3$  is not cyano.